



Overindulgence overload

By Kelly Rose

Overindulging is something we all do from time to time and to a certain degree it is usually not a problem. Many of us will confess to having that extra chocolate or 'one too many' on a night out. It is when the overindulgence becomes excessive or forms part of daily life that it does become an issue.

Overindulging in activities like eating, drinking, smoking and using non-prescription drugs may have many detrimental effects and it is important to take a look at why, for some, there is a need to overindulge. So, what's the science behind this? And how can nutrition help to beat the 'need'?

The Science

Researchers have discovered that the brain has a complex system of reward pathways, also known as pleasure centres. These pathways are stimulated by neurotransmitters, (brain chemicals) like serotonin and dopamine. Inadequate stimulation of the reward pathways may lead to a 'reward deficiency' and can lead to emotional issues such as depression and anxiety. People who experience a 'reward deficiency' often suffer from restlessness, difficulty focussing and feelings of inadequacy. People with reward deficiency will often seek out an activity, be it eating, drinking, smoking, gambling or thrill seeking, in order to feel better.

The brain neurotransmitters involved in the reward pathways work in patterns of stimulation and inhibition, and often one neurotransmitter may signal the release of others. The neurotransmitter dopamine is strongly associated with the reward pathways and plays a role in motivation. Serotonin is responsible for making us feel good and plays a role in mood patterns; this is why many of the prescription anti-depressants work by raising serotonin levels. Non-stimulatory neuro-transmitters, such as GABA, are just as important and seem to help balance the likes of dopamine and serotonin. As with most systems within the body the neurotransmitters must be kept in balance for optimal brain functioning, it is when there is an imbalance that there is a craving, or a need, for overindulging in something.

Beat the 'need' with nutrition

Food is vital for living, and what you eat and when, can have a large impact upon how your brain functions and how you feel. The brain is a greedy organ and uses vast amounts of energy nutrients making an even supply essential. Balancing blood sugar can be achieved by eating regularly and having a good intake of quality protein with each meal or snack. Protein rich foods such as oily fish, eggs, nuts and seeds may assist with a sustained release of energy. Avoiding sugary or white, refined foods is important and never skip a meal or snack as this creates big dips in energy levels. Nutrients of particular use in blood sugar balance include the mineral chromium, B vitamins and cinnamon.

The brain is made up of approximately 77 % water and so keeping a good fluid intake is important, aim for 8 glasses of fresh water daily and try to keep teas and coffees to a minimum.

Restoring the correct biochemical balance in the brain is imperative to help break the 'need' cycle. When the correct neurotransmitters are in balance there is less need to overindulge in an activity to stimulate the reward pathways. Nutrition plays a large role in neurotransmitter balance as many are derived from amino acids and other nutrients may act as co-factors and assist in neurotransmitter synthesis.

The amino acid 5HTP, is used to make serotonin and along with vitamins B6 and B3 may support levels. It has also been found that vitamin D raises serotonin levels. Vitamin B12, B3 and folic acid are important for balanced dopamine and adrenalin levels and N Acetyl Cysteine (NAC) has a positive effect on dopamine receptors. Another important amino acid, taurine, is similar to the 'relaxing' neurotransmitter GABA, which regulates dopamine and serotonin levels. Taurine and another amino acid, glutamine, both play a role in the activity and balance of GABA.

Stress may also play a role in imbalances and the herb, rhodiola, alongside vitamin B5, theanine and magnesium may be supportive during times of stress.

Mind therapies

As we are discussing matters of the mind it is essential to also consider mind therapies such as counselling, CBT (Cognitive Behaviour Therapy) and NLP (Neuro Linguistic Programming). These help in breaking the 'need' cycle and also focus on replacing negative activities and assist in finding more positive, healthy pleasures to support pathways.



Making the changes necessary to leave negative overindulgence behind is daunting and may be a difficult journey to make, but once there is a conscious decision to address the situation there will be no going back.